

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET
(Pursuant to NAC 445A.236)

Permittee Stateline Stormwater Association
P O Box 12427
Zephyr Cove NV 89448

Permit No. NV0023051

Facility Public and private properties subject to the Stateline Regional Stormwater Treatment and Disposal Agreement, Stateline, Douglas County, Lake Tahoe Basin

General The Stateline Stormwater Association was created for the purpose of constructing, operating, and maintaining stormwater control, treatment, and disposal facilities to serve the casino core area of Stateline. Association members consist of Mont Bleu, Harrah's, Harvey's, Horizon, Park Cattle Company (Edgewood Golf Course), Wells Fargo Bank, Douglas County (Lake Parkway), and the Nevada Department of Transportation (Hwy 50). Improvements constructed by the association tie together the previously existing individual drainage systems and deliver an estimated 83% of the design storm volume to the treatment facility, with subsequent discharge to the irrigation storage reservoir on the golf course. The Association is responsible for the common facilities, members are responsible for their own private facilities. This is the second permit for the areawide system.

The common facilities consist of a bar screen vault, oil separation vault, diversion box, two parallel treatment vaults, and junction box located on the west side of Horizon's parking lot, followed by a 49 in. pipe to Pond 6 on Edgewood Golf Course, and, to serve a different portion of the drainage area, an 18 in. pipe from Wells Fargo Bank and Lake Parkway North to Pond 6.

Common facilities on the golf course consist of a series arrangement of Pond 6, wetlands, and Pond 10. This treatment pond system provides an estimated 24 hr detention time for the Tahoe Regional Planning Agency (TRPA) water quality design storm (20 yr 1 hr), prior to discharging to Pond 1. Pond 1 is on Edgewood Creek and is the irrigation storage reservoir for the golf course. A portion of Edgewood Creek above Pond 1 is diverted to Pond 6 to maintain water levels during dry periods. Below Pond 1, Edgewood Creek is joined by Golf

Course Creek, and the combined flow discharges to Pond 18, which in turn discharges to Lake Tahoe.

Golf Course Creek flows through the casino properties in a 30 in. pipe that begins at Harrah's and terminates at lower Golf Course Creek on the eighth fairway. A weir on this bypass diverts the design storm to the common facilities, while other flows remain in the creek. Golf Course Creek receives flow above the weir from Harrah's and Lake Parkway East, and below the weir from Horizon's hotel casino roof and Lake Parkway West.

Mont Bleu and NDOT discharge to the common facilities. Harrah's discharges to Golf Course Creek above the weir, and to an infiltration system in the parking lot. Harvey's discharges to an onsite infiltration pond, with excess flows pumped to the common system. Horizon's hotel casino roof discharges to Golf Course Creek below the weir, the parking garage roof discharges to an onsite infiltration system, and the remainder of the site discharges to the common facilities. Wells Fargo Bank discharges to Pond 6 via an 18 in pipe that also serves Lake Parkway North. Lake Parkway is split into west, north, and east sections for drainage purposes; the west section discharges to Lower Golf Course Creek, the north section discharges to Pond 6 via the 18 in. pipe that also serves Wells Fargo Bank, and the east section discharges to Golf Course Creek above the weir.

Receiving Water Characteristics Although infiltration and irrigation account for a large portion of the storm flow, an unknown fraction will eventually reach Lake Tahoe. With an elevation of 6225 ft, a depth of 1645 ft, and a surface area of 191 square miles, Lake Tahoe is known throughout the world for the clarity of its water. That quality is decreasing, however, from long term non-point source and atmospheric pollutant inputs resulting from past and ongoing development of surrounding areas. Local and national efforts aimed at reversing this trend have been increasing in recent years. Water quality standards for Lake Tahoe are set at NAC 445A.191, and the statewide standards for toxic materials at NAC 445A.144 are also applicable.

Rational for Permit Requirements Table I.A.1 below is taken from the permit.

Table I.A.1 Discharge Limitations - Pond 10 Outlet

Parameter	Discharge Limitations mg/l except as noted	Monitoring Requirements		
		Sample Location	Measurement Frequency	Sample Type
Total Nitrogen as N	5	a	monthly	discrete
		a, b	c	discrete
Total Phosphate as P	1	a	monthly	discrete
		a, b	c	discrete
Iron	4	a	monthly	discrete
		a, b	c	discrete
Oil & Grease	40	a	monthly	discrete
		a, b	c	discrete
Turbidity	80 NTU	a	monthly	discrete
		a, b	c	discrete

a = Pond 10 outlet, b = Pond 6 inlet manhole, c = each 2 yr 1 hr storm (approx. 0.55 in)

The limitations are the TRPA groundwater discharge standards. They're used here because they were chosen as the design criteria for the system; in that they're reasonable for a passive system of this type, and since a large fraction of the discharge is taken up by infiltration and irrigation use in season. Flows are mixed, with Golf Course and Edgewood Creeks bringing off site inputs that reduce control over what's measured at Pond 10's outlet. The storm criteria was chosen based on considerations of frequency and flow.

Monthly sampling has been added to the storm based approach of the previous permit as a means of generating some data. Efforts to characterize storm loads have largely failed, due to a variety of reasons, including: infrequent storm events, off site inputs, and complicated drainage patterns with multiple times of concentration. What little data was collected at Pond 10's outlet over the previous permit term is presented in the table below. Pond 10's discharge is representative of the common facilities' performance, minus the variable and unknown off site contributions, and the monthly data generated over the next permit term should provide some useful information.

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Sample Point #1: Pond 10 Outlet

	Limit	06/23/03	02/27/06	05/05/06
TN, mg/l	5	1.1		
TKN, mg/l		1.1		
NO3-N, mg/l				
NH3-N, mg/l			0.022	0.023
NO3/NO2 - N, mg/l			0.095	0.011
DIN, mg/l			0.117	0.034
TP, mg/l	1	0.06		
DP, mg/l			0.04	0.03
Fe, mg/l	4	0.75	1.3	0.63
Oil & Grease, mg/l	40			
Turbidity, JTU	200	2.6		3.6
TSS, mg/l			34	9.06

Changes from the Previous Permit The addition of monthly sampling is discussed above. The turbidity limit has been changed from 200 JTU to the equivalent 80 NTU, in conformance with current TRPA practice.

The "discharge concentration goals" have been removed. These goals were the TRPA surface discharge standards, which the system was not designed to meet. Their use was intended to bring about iterative rounds of focused BMP improvements. While commendable, this approach now seems overly ambitious, especially given the comments above regarding storm sampling. This could be revisited next permit term after meaningful amounts of actual operating data have been collected.

Requirements regarding the private infiltration facilities - for Horizon's parking garage roof, portions of Harrah's parking lot, and Harvey's pond, have been removed. These were remnants of previous permits, dating back to the 1970s, and are not consistent with current Division activities in the basin and elsewhere. Even within this permit, Horizon's hotel casino roof discharges to Golf Course Creek below the weir, thereby escaping all treatment except for incidental uptake on the golf course. Other similar infiltration facilities have not been permitted; infiltration is, in fact, a preferred BMP. The permitting

approach could be revisited in the future, but it should be on a uniform areawide basis.

Procedures for Public Comment The Division has made the tentative determination to renew discharge permit NV0023051 for a five year term. Notice of this action is being sent to the Reno Gazette Journal for publication and mailed to interested persons on our mailing list. Any comments on the proposed permit must be submitted to the Division in writing within thirty days of the publication date. The comment period can be extended at the discretion of the Administrator. The deadline for comments is 5:00 P.M. Monday July 2, 2007, although letters postmarked on that date will also be accepted.

A public hearing on the proposed determination can be requested by the applicant or any interested person or agency. The request must be filed within the comment period and indicate the interest of the person filing the request and the reasons why a hearing is warranted. Public hearings granted by the Division are conducted in accordance with NAC 445A.238.

The final determination of the Division may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

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